

**Amendments to the Claims**

1. (CURRENTLY AMENDED) A control system for a voltage converter, said control system comprising :

- a first switch-(T1), a second switch-(T2), a third switch (T3) and a fourth switch (T4)-connected in series,
- said first switch (T1)-having a first output terminal-(N1),
- the common terminal of said first switch (T1) and said second switch (T2) defining a second output terminal-(N2),
- the common terminal of said second switch (T2) and said third switch (T3) being intended to be connected to an input voltage-(VDD),
- the common terminal of said third switch (T3) and said fourth switch (T4) defining a third output terminal-(N3),
- said fourth switch (T4)-having another output terminal intended to be connected to a ground potential-(GND),
- said first, second and third output terminals (N1, N2, N3)-being intended to be connected to a voltage converter of a first type or to a voltage converter of a second type,
- detection means (DET)-connected to said third output terminal-(N3), to generate a detection signal (DS)-indicating said first type or said second type of voltage converter,
- a circuit (CIR)-intended to generate, from a clock signal (CLK) and said detection signal-(DS), control signals (CS1,CS2,CS3,CS4)-intended to control said first, second, third and fourth switches (T1, T2, T3, T4).

2. (CURRENTLY AMENDED) A control system as claimed in the claim 1,

wherein the detection means (DET)-comprise :

- means (CS)-for injecting a current (i)-at said third output terminal-(N3),
- comparing means (COMP) to compare the potential of said third output terminal-(N3), with a reference potential-(Vref).

3. (CURRENTLY AMENDED) A control system as claimed in ~~claim 1 or~~

Claim 1, wherein said voltage converter of a first type comprises :

- an inductance ( $L$ ) connected between said input voltage ( $V_{DD}$ ) and said third output terminal ( $N3$ ),
- a diode ( $D$ ) connected between said first output terminal ( $N1$ ) and said second output terminal ( $N2$ ).

4. (CURRENTLY AMENDED) A control system as claimed in ~~claim 1 or 2~~claim 1, wherein said voltage converter of a second type comprises a capacity ( $C_p$ ) connected between said second output terminal ( $N2$ ) and said third output terminal ( $N3$ ).

5. (CURRENTLY AMENDED) An integrated circuit ( $IC$ ) comprising a control system for a voltage converter as claimed in ~~claim 1, 2, 3 or 4~~claim 1.